भारतीय मानक

Indian Standard

IS 17673 : 2021

सोया आम्रखंड — विशिष्टि

Soy *Amrakhand* — Specification

ICS 67.060

© BIS 2021

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, 9 बहादुरशाह ज़फर मार्ग, नई दिल्ली – 110002
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI-110002
www.bis.gov.in www.standardsbis.in

September 2021 **Price Group 3**

Foodgrains, Allied Products and Other Agricultural Produce Sectional Committee, FAD 16

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Food grains, Allied Products and Other Agricultural Produce Sectional Committee had been approved by the Food and Agriculture Division Council.

In recent past, the acceptance of soy food products including dairy analogs is increasing gradually in India. Growing soybean cultivation is expected to further help enhance the same in years to come. Soybean being a good source of protein is consumed in different forms like soy flour, soy nuts, soy milk and soy milk based dairy analogs namely, soy *dahi*, soy *shrikhand*, soy *amrakhand*, tofu, soy *lassi*, soy *matha* etc.

This standard is being issued with a view to help the soy food entrepreneurs in production of good quality soy *amrakhand* and also guiding other soy processers in taking up the production of soy *amrakhand.*

This standard is expected to help in exercising the necessary quality control in the manufacture of safe and good quality soy *amrakhand*, which has a very good potential for inland use and export. This highlights the need for a standard that would benefit the consumer and the manufacturer/processor.

While preparing this standard, assistance has been drawn from IS 9532 : 1980 '*Chakka* and *Shrikhand'*.

In the formulation of this standard, due consideration has been given to the provisions of the *Food Safety and Standards Act*, 2006 and the *Rules* and *Regulations* framed thereunder and the *Legal Metrology* (*Packaged Commodities*) *Rules*, 2011. However, this standard is subject to the restrictions imposed under these, wherever applicable.

The composition of the Committee responsible for formulation of the standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is compiled with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

SOY *AMRAKHAND* — SPECIFICATION

1 SCOPE

This standard prescribes the, requirements and the methods of sampling and test for soy *amrakhand.*

2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

IS No.	*Title*
1070 : 1992	Regent grade water — Specification (*third revision*)
1151 : 2021	Refined sugar — Specification (*third revision*)
1166 : 1986	Condensed milk, partly skimmed and skimmed condensed milk — Specification (*second revision*)
2491 : 2013	Food hygiene — General principles — Code of practice (*third revision*)
3880 : 1976	Canned mango pulp — Specification (*first revision*)
5401 (Part 1) : 2012/ISO 4832 : 2006	Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of coliforms: Part 1 Colony count technique (*second revision*)
5403 : 1999	Method for yeast and mould count of foodstuffs and animal feeds (*first revision*)
5887	Methods for detection of bacteria responsible for food poisoning: Part 1 isolation, identification and enumeration of escherichia coli (*first revision*)
(Part 1) : 1976	Isolation, identification and enumeration of *Escherichia coli* (*first revision*)
(Part 3) : 1999/ ISO 6579 : 1993	General guidance on methods for the detection of *Salmonella* (*second revision*)
(Part 7) : 1999	General guidance on methods for isolation and identification of *Shigella*
7219 : 1973	Method for determination of protein in foods and feeds
7837 : 2013	Edible full-fat soya flour — Specification (*first revision*)
9532 : 1980	*Chakka* and *Shrikhand* — Specification
10484 : 2021	Paneer — Specification (*first revision*)
11962 : 2012	Rennet caseins and caseinates — Determination of ash (Reference method) (*first revision*)
14818 : 2017/ ISO 24333 : 2009	Cereal and cereal products — Sampling (*first revision*)

3 TERMINOLOGY

For the purpose of this standard, the following definitions shall apply.

3.1 ***Chakka*** (*see* IS 9532) — The semi-solid product obtained by draining off the whey from the yoghurt obtained by the lactic fermentation of milk which has been subjected to minimum heat-treatment equivalent to that of pasteurization. *Chakka* is the base material for *amrakhand* preparation.

3.2 ***Amrakhand*** — The semi-solid product obtained by mixing chakka (IS 9532) either with fresh or canned mango pulp (IS 3880), powdered sugar and other optional flavouring agents like cardamom, saffron, nutmeg, etc. It has a sweet-sour refreshing taste, pleasing aroma, smooth homogeneous texture and firm consistency.

3.3 Soy *Chakka* — The semi-solid product obtained by draining off the whey from the soy curd (*dahi*) obtained by the lactic fermentation of soy milk or a mix of soy milk and dairy milk. Soy *Chakka* shall not contain any ingredient foreign to dairy milk and soy milk.

3.4 *Soy Amrakhand* — It is an indigenous sweet-sour product, made by mixing soy c*hakka* either with fresh or canned mango pulp (*see* IS 3880), powdered sugar and other optional flavouring agents like cardamom, saffron, nutmeg, etc. It has similar properties and uses like *amrakhand*.

4 REQUIREMENTS

4.1 Description

Soy *Amrakhand* shall be sweet-sour product, with a pleasant mix flavour of curd (*dahi*) and mango pulp. It shall be free from objectionable flavours and odours. It shall have uniform texture and consistency and shall be free from coarseness and signs of fat or water seepage or both and moldiness. The material shall be pale yellow to yellow in colour, with no extraneous colour.

4.2 The product shall be manufactured under hygienic conditions (*see* IS 2491).

4.3 In addition to the above, the product shall also comply with the requirements given in Table 1.

5 ESSENTIAL INGREDIENTS

5.1 Soy *Chakka*

5.2 Mango Pulp — Either fresh or canned (*see* IS 3880).

5.3 Sugar (*see* IS 1151), according to the requirements of the consumer.

6 OPTIONAL INGREDIENTS

6.1 In addition to the essential ingredients specified above, any of the following ingredients may be added for variation in taste:

a) Different fruit pulp(s) like jackfruit, custard apple, guava, papaya in isolation or in combination with mango pulp in the formulation to prepare different variants of soy *amrakhand.*
b) Condiments such as cardamom and saffron of food grade quality.

NOTE — No artificial colouring material shall be added to Soy *Amrakhand.*

6.2 Permitted flavours and stabilizers as per *Food Safety and Standards* (*Food Product Standards and Food Additives*) *Regulations*, 2011 may be used.

7 PACKING AND MARKING

7.1 *Soy Amrakhand* shall be packed in suitable food grade containers and securely packed and stored preferably at a temperature below 10 °C to avoid microbial growth.

NOTE — The product should generally have a shelf life of 1 day under ambient conditions and around 60 days when stored in refrigerator (8-10 °C) in a sealed container. However, under subzero conditions, it can be extended to minimum four months.

7.2 Marking

The containers shall legibly and indelibly bear the following information:

a) Name of the product, that is, ‘Soy *Amrakhand*;
b) Name and address of the manufacturer;
c) Brand name, if any;
d) Batch or code number;
e) Date of manufacturing;
f) Best before …… from the date of manufacturing or packing;
g) Net quantity;
h) List of ingredients in descending order of proportion;
j) Country of origin;
k) Instructions for use;
m) Directions for storage;
n) Indicator for vegetarian product that is, green circle in a square; and
p) Any other information required under the *Legal Metrology (Packaged Commodities) Rules*, 2011 and the *Food Safety and Standards (Packaging and Labelling) Regulations*, 2011.

7.3 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

8 SAMPLING

Representative samples of the material shall be drawn and tested for conformity to this standard as prescribed in IS 14818.

9 TESTS

9.1 Tests shall be carried out as prescribed in col 4 of Table 1.

9.2 Quality of Reagents

Unless specified otherwise, pure chemicals shall be employed in tests and distilled water (*see* IS 1070) shall be used where the use of water as reagent is intended.

NOTE — ‘Pure chemicals’ shall mean chemicals that do not contain impurities which affect the test results.

Table 1 Requirements for Soy *Amrakhand*

(*Clauses* 4.3 *and* 9.1)

Sl No. (1)	**Characteritics** (2)	**Requirement** (3)	**Methods of Test, Ref to** (4)
i)	Total solids, percent by mass, *Min*	50.0	Appendix B of IS 1166
ii)	Acidity, as lactic acid, percent by mass, *Max*	1.5	IS 10484
iii)	Fat (on dry basis), percent by mass, *Min*	8	Appendix C of IS 1166
iv)	Protein (on dry basis), percent by mass, *Min*	11	IS 7219
v)	Total Ash (on dry basis), percent by mass, *Max*	1.2	IS 11962
vi)	Sugar (sucrose), percent by mass, *Max*	75	Appendix D of IS 1166
vii)	Urease Activity	Change in *p*H not more than 0.5	IS 7837
viii)	Yeast and mould count per gram, *Max*	100	IS 5403
ix)	Coliform count/g, *Max*	10	IS 5401 (Part 1)
x)	*Salmonella,* per g	Absent	IS 5887 (Part 3)
xi)	*Shigella,* per g	Absent	IS 5887 (Part 7)
xii)	*E. coli*, per g	Absent	IS 5887 (Part 1)

ANNEX A

(*Foreword*)

COMMITTEE COMPOSITION

Foodgrains, Allied Products and Other Agricultural Produce Sectional Committee, FAD 16

Organization	*Representative(s)*
Directorate of Marketing and Inspection, Ministry of Agriculture, New Delhi	Shri P. K. Swain J S (Marketing) and Agricultural Marketing Advisor (***Chairman***)
All India Food Processors' Association, New Delhi	Shri Sham Baggarry Ms Jyoti Soni (*Alternate*)
CSIR-Central Food Technological Research Institute (CFTRI), Mysore	Dr M. S. Meera Dr V. B. Sashikala (*Alternate*)
Centre of Excellence for Soybean Processing, CIAE, Bhopal	Dr Punit Chandra Dr S. K. Giri (*Alternate*)
ICAR-Central Institute of Post-Harvest Engineering and Technology (CIPHET), Ludhiana	Head (Division of Transfer of Technology) Dr D. N. Yadav (*Alternate*)
ICAR-Central Tuber Crop Research Institute (CTCRI), Thiruvananthpuram	Director Dr M. S. Sanjeev (*Alternate*)
ICAR-Indian Institute of Maize Research (IIMR), Ludhiana (formerly DMR)	Dr R. Sai Kumar Dr Dharam Paul Chaudhary (*Alternate*)
ICAR-National Rice Research Institute, Cuttack	Dr Awadhesh Kumar Dr (Mrs) Padmini Swain (*Alternate*)
Central Warehousing Corporation (CWC), New Delhi	Shri A. K. Malhotra Shri Sidharth Rath (*Alternate*)
CONCERT, Chennai	Shri R. Santhanam, IAS (Retd) Shri G. Santhanarajan (*Alternate*)
Confederation of Indian Food Trade & Industry (CIFTI)-FICCI, New Delhi	Ms Parna Dasgupta Ms Priyanka Sharma (*Alternate*)
Confederation of Indian Industries (CII), New Delhi	Mr Manish Whorra Mr Aromal Jkoshi (*Alternate*)
Consumer Education and Research Centre, Ahmedabad	Mrs Dolly A. Jani Dr Anindita Mehta (*Alternate*)
Consumer Guidance Society of India, Mumbai	Dr Sitaram Dixit Dr M. S. Kamath (*Alternate*)
Consumer Research, Education, Action, Training and Empowerment (CREATE)	Mr K. Suresh Kanna Shri R. Ponnamalam (*Alternate*)
Defence Food Research Laboratory (DFRL), Mysore	Dr G. K. Sharma Dr A. D. Semwal (*Alternate*)
Directorate General of Supplies and Transport, Delhi	Col S. C. Joshi Maj Sonali Dudhane (*Alternate*)
Directorate of Marketing & Inspection, Faridabad	Dy Agricultural Marketing Advisor SMO (Std) (*Alternate*)
Directorate of Plant Protection Quarantine and Storage, Faridabad	Plant Protection Adviser Shri R. V. Singh (*Alternate*)
Food Corporation of India (FCI), New Delhi	Mr A. S. Arunachalam Mr Sachin (*Alternate*)

Organization	*Representative(s)*
Food Safety and Standards Authority of India, New Delhi	Ms Aprajita Verma
G B Pant University, Food Science Division, Pant Nagar	Dr Satish K. Sharma Dr Sweta Rai (*Alternate*)
In personal capacity	Dr S. C. Khurana
In personal capacity	Shri I. C. Chaddha
Indian Grain Storage Management and Research Institute, Hapur	Director
Indian Institute of Food Processing Technology (IIFPT), Thanjavur	Dr C. Anandharamakrishnan
Indian Institute of Packaging (IIP), Delhi	Mr Deepak Khedkar Mr Madhab Chakraborty (*Alternate*)
Ministry of Consumer Affairs, Food and Public Distribution, New Delhi	Dr Subhash Gupta Dr S. C. Bansal (*Alternate*)
National Institute of Food Technology Entrepreneurship and Management (NIFTEM), Sonipat	Dr Ashutosh Upadhyay Dr Rupesh Chavan (*Alternate*)
National Institute of Nutrition (NIN), Hyderabad	Dr K. Bhaskara Chary Dr V. Sudershan Rao (*Alternate*)
National Sugar Institute (NSI), Kanpur	Dr V. P. Srivastava
Protein Foods and Nutrition Development Association of India (PFNDAI)	Dr Shatadru Sengupta Dr Jasvir Singh (*Alternate*)
Roller Flour Millers Federation of India (RFMFI), New Delhi	Mr D. V. Malhan
Vasantdada Sugar Institute (VSI), Pune	Dr Rajeev V. Dani Dr Sanjeev V. Patil (*Alternate*)
Warehousing Development and Regulatory Authority (WDRA), New Delhi	Dr Radhey Krishna Tripathi
BIS Directorate General	Shrimati Suneeti Toteja, Scientist 'E' and Head (FAD) [Representing Director General (*Ex-officio*)]

Member Secretary

Dr Bhawana
Scientist 'D' (FAD), BIS

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act*, 2016 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc No.: FAD 16 (11441).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones: 2323 0131, 2323 3375, 2323 9402 *Website*: www.bis.gov.in

Regional Offices:		*Telephones*
Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	2323 7617 2323 3841
Eastern	: 1/14 C.I.T. Scheme VII M, V.I.P. Road, Kankurgachi KOLKATA 700054	2337 8499, 2337 8561 2337 8626, 2337 9120
Northern	: Plot No. 4-A, Sector 27-B, Madhya Marg CHANDIGARH 160019	265 0206 265 0290
Southern	: C.I.T. Campus, IV Cross Road, CHENNAI 600113	2254 1216, 2254 1442 2254 2519, 2254 2315
Western	: Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	2832 9295, 2832 7858 2832 7891, 2832 7892

Branches : AHMEDABAD. BENGALURU. BHOPAL. BHUBANESHWAR. COIMBATORE. DEHRADUN. DURGAPUR. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. JAMMU. JAMSHEDPUR. KOCHI. LUCKNOW. NAGPUR. PARWANOO. PATNA. PUNE. RAIPUR. RAJKOT. VISAKHAPATNAM.

Published by BIS, New Delhi